



ESTONIAN UNIVERSITY OF LIFE SCIENCES

Institute of Agricultural and Environmental Sciences

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**EVALUATION OF LANDSCAPES WITH ENVIRONMENTAL
PSYCHOLOGICAL INDICATORS BASED ON THE
KADRIORU PARK**

MAASTIKE HINDAMINE KESKKONNA PSÜHHOLOOGILISTE
MÕÕDIKUTEGA KADRIORU PARGI NÄITEL

Master's Thesis

Curriculum in Landscape Architecture

Supervisor: lektor Kadri Maikov, *PhD*

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Abstract (150 – 250)

The thesis given is a discussion on landscape architecture, finding landscape characteristics, assessing landscape characteristics as healing environments for people in the cultural space of Estonia based on the example of the Kadrioru Park. The thesis uses a variety of tools of different theories on landscape psychology to evaluate the characteristics of green spaces.

Data was collected with online public survey on the period 26.02.2018 – 15.03.2018.

The results added new potential viewpoints to existing research on how landscape characteristics are perceived in the cultural space of Estonia.

Key words: healing landscapes, environmental psychology, health, green areas, landscapes, city parks

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1. INTRODUCTION

The thesis is divided into three main parts, firstly the review of literature, different theories, hypotheses and researches which where the basis for the research questionnaire. The second part overviews the purpose of the thesis and the research questions, the methods and the research environment. The third part concludes the results of the research and focuses on discussing the results of the research.

Having stress is nothing extraordinary in present society. Situations that cause tension and anxiety are rather common a phenomenon. The pace of living is fast; people forget to take time to rest because there is always something that needs to be done [20, 21.]. Things get done at the expense of sleep which leads to fatigue and exhaustion which are the sources of stress. [26.]. Inability to reduce stress and regulate work and rest is, according to a psychiatrist Jüri Ennet, the main cause for mental instability. To balance, physical activity is essential. [31.].

The main role of restorative environment is to recreate decreased emotional and functional resources [1.]. This contributes to lowering the stress level and creating positive emotions over negative ones. The recovery is faster if the causes of stress are eliminated. Certain environments are more suitable for total recovery than other because humans have evolutionary and aesthetic environmental preferences. [12, 13.].

Like looking for professional help people often turn to nature to find help and support because there is an intuitive bond between human and the nature. The human's biological being is strongly connected with the nature and feels cohesion. [10, 11, 24, 26.].

We live in the 21st century where the development of cities is fast and overwhelming due to the economic growth [29.]. Buildings rise, cities grow larger and denser. The aim is to maintain a green and environmental friendly space within the cities to surround people with green spaces and reduce the impact of concrete and noise. Looking at the maps of such cities one might get the impression of plenty of green spaces when in reality many of them cannot be considered one. Squares, memorials, wild areas, private gardens, spaces between buildings and roads are

all taken into account as green spaces [17.]. People favour the places which are similar to those or have mutual characteristics [20.].

Korpela's [14.] research has shown that people who have spent their whole lives in the city need the support of natural spaces such as forests, natural landscapes or large city parks which have the necessary characteristics of a restorative environment - water, trees and shrubs, grass area. It is important that people can feel the sensation of 'being away' within the city [7.] which gives the effect of a restorative environment. According to research the main cause of stress is work. As a result, more and more employers are interested in creating work spaces which help to reduce stress among the employees. Ülemiste City in Tallinn is an excellent example to show a varied city environment which green spaces help the people to clear their minds during the day, unload the stress and relax. Several researches have shown that availability of green spaces is an effective feature to help reduce stress and mental fatigue compared to city space with no restorative elements [13, 14, 25.].

In this thesis the author will use terms "landscape characteristics", "room characteristics" and "space/spatial characteristics" as one term based on Berggren-Bärring [2.] landscape characteristic.

Aim of the research and hypothesis

People's preferences for health related environment characters are also environment quality standards. The overall aim is to find out whether all of the landscape characteristics [2.] are suitable for all user groups, if there are differences in preferences of male and female users and how people feel themselves considering the presence of other people and acceptable activities based to Estonian cultural space.

1. Presumably, a person can perceive the space in the pictures and the potential emotions created by each space characteristic are different and can be determined. Each of the spaces have specific emotional, psychological and physical prerequisites which present the space.
2. Depending on the intentions of the user of the green space the focal features of space are different. The combinations of distinct elements should be emphasized but the

presence of familiar elements in green spaces is also essential. All latent visual elements play an important role in the perception of the space.

3. Each of the landscape characteristics have features which attract users with certain intentions of recreation, whether it is a combination of some elements, variety of species, vistas, difference from daily environment. Views of the landscape characteristics are also considered as a feature.
4. In the cultural space of Estonian, on the example of the Kadrioru Park, green spaces have visitors among each of the user groups all the time.

Hereby, the author wants to thank the supervisor who has been a capable guide within the subject chosen. A special thanks to all the people who answered the long and time-consuming questionnaire. Author would like to say special thanks to Janika.

2. TERMINOLOGY

Attention Restoration Theory (ART) - a theory developed to explain the psychological responses to nature proposing that certain environments contribute to reducing the demand for directed attention, and thus propose a framework which explains how DAF can be restored. The theory suggests that directed attention can be restored if one enters an environment that contains four components: fascination, extent, being away and compatibility [9.].

Cognitive abilities - set of mental abilities related to learned skills.

Directed attention - the attention system required to carry out goal-directed tasks; a finite resource that is susceptible to fatigue. Utilising directed attention requires effort and plays a central role in concentration and the ability to ignore distractions.

Culture Space in Estonia– People from one area act alike, because they have the same cultural background and traditions.

Sensory abilities - abilities related to sensing with physical senses such as, seeing, hearing, smelling.

Spontaneous attention - An involuntary attention evoked by fascinating or captivating object or situation. Utilising spontaneous attention does not require mental effort.

PSD – Pervasive Sensory Dimensions is the third generation landscape characteristic measuring tool [26.].

Landscape characteristics - a set of characteristics developed to describe green spaces. A.-M. Berggren-Bärring and P. Grahn [2.] have developed a system of eight landscape characteristics in year 1995 as following:

“Serene” - a landscape characteristic; clean and clear areas, strong sense of safety [21.]; peace and silence, sounds of wind, water, birds and insects, no rubbish, no weeds, no disturbing people [2.].

“Wild” - a landscape characteristic; fascination with wild nature; lichen- and moss-grown rocks and old paths, plants seem to be self-sown [2.].

“Rich in Species” - a landscape characteristic; natural diversity, variety of species of plants and animals [2.].

“Space” - a landscape characteristic; a coherent whole offering a restful feeling of “entering another world”, single, simple structures [2.].

“The Common” - a landscape characteristic; green and open space [2.] with different types of views, vistas and simple sitting opportunities [21.].

“The Pleasure Garden” - a landscape characteristic; an enclosed safe and secluded place where one can relax, be their-self and also experiment and play [Berggren-Bärring, Grahn]

“Festive” - a landscape characteristic; a meeting place for pleasure and festivity [2.], a space that enables to feel free [21.].

“Culture” - a landscape characteristic; a historical place to emphasise the passing of time [2.], a room of open character and strong vistas [21.].

3. LITERATURE REVIEW

3.1 Landscape Characteristics

Swedish scientists Grahn and Berggren-Bärring have developed the modern concept on the landscape room involving different landscape characteristics. The landscape characteristics were developed by carrying out a survey where different green areas were evaluated. With the help of Geographic Information System [24.] and different statistical tools the answers of the respondents were systemised to research the connections between preferred landscape characteristics and the well-being of the respondents. The second generation of the research, on which this thesis is based, was published in 1995. Second generation tools are chosen based on landscape characteristic descriptions to evaluate the environment [2.].

3.2 The Biofilia Hypothesis

“Biofilia” as a word means love or affection of anything and everything that is alive and viable. Edward O. Wilson has defined biofilia hypothesis in his book “Biofilia” [10,11,24.] as an intuitive connection between humans and living beings. It is some kind of connection that humans subconsciously look for their whole life. Biofilia expresses positive feelings that people have for certain habitats, activities and things in their natural surroundings [24.].

3.3 Latent Image Elements

In our everyday environment spatial legibility and orienteering are a big part of our nature. As many people, we also have a variety of understanding surroundings. K. Lynch discusses in his book “The Image of the City” [16.] how different people perceive the space according to collective perception to some extent. The common aspect is the quality of the site. It causes a sense of cohesion. [16.].

The contents of the images of the city studied so far are referable to physical forms which can conveniently be classified into five types of elements: paths, edges, districts, nodes, and landmarks [16.].

3.4 Attention Restoration Theory

Attention can be divided into two types: directed and spontaneous. Directed attention is used to focus on certain object or task which is important but not interesting [7.]. Utilising directed attention requires mental effort and therefore, when exploited over a long period of time, causes fatigue. That might lead to ineffective decisions and errors, causing inconvenience and stress. Spontaneous attention on the other hand is evoked by something interesting or pleasant [8.]. This kind of reaction towards fascinating stimuli requires no mental effort. [9.].

According to the Attention Restoration Theory [9.] an environment must include four components to provide restoration of directed attention – extent, being away, fascination, compatibility [9.].

3.5 Therapy Theory

The therapy theory is divided into three flows - the healing garden, the gardening therapy and the cognitive flow [20.]:

- The Healing Garden Flow

The healing garden flow is in turn based on three theories. First of which suggests that wild nature has a positive impact on health, because it has a restorative effect on the emotional system of the limbic part of the brain [20.]. On the other hand, a second theory suggests that different health indicators depend on cognitive functions and the restorative qualities of the green area [20.]. According to the third theory familiar people and situations demands more than unfamiliar environment. The less primitive the stimulus, the lower is the expectation [20.].

- The Gardening Therapy Flow

This theory suggests that gardening has a therapeutic effect. Practicing gardening helps release tension and improves health indicators because it is natural for people to be active. Gardening can easily stimulate many cognitive abilities and psychological patterns [20.].

- The Cognitive Flow

The healing effect of a garden depends on the space, the experience, the people. Activities from childhood and youth recreate the identity of a person. It triggers uplifting positive emotions. An environment that meets expectations is an environment that allows to feel free [20.].

4. METHODOLOGY

4.1 Selecting the test environment

The Kadrioru Park is one of the most beautiful historical parks of Estonia and a well-known part of the city of Tallinn. Thanks to the natural characteristics of the area the park is very varied [6.].

From the perspective of forestry in Estonia, a park covers an area of 3-5 ha [15.]. Whereas, in the rest of the world, a park is described as an area of 10-15 ha which is almost three times larger. According to this definition the Kadrioru park is the one of some park in Tallinn and Estonia.

As Kadrioru park is very valuable due to its characteristics and history, it has been chosen as a test environment [6.]. The scale and diversity of the park should prevent the different landscape characteristics from interfering with each other as even small spaces might hold all of the eight characteristics. Determining the spatial characteristics (Appendix 1) within the park is based on the research by P. Grahn ja A. M. Berggren-Bärring on describing green spaces (Appendix 3).

4.2 The connection between the research subject and

The field of research is handled from the perspective of environmental psychology and the potential essence of healing landscapes based on the literature on environmental psychology, healing landscapes, health, stress, focus, rest. Choice of theories and measurable tools are constructed by landscape as environment measurable elements.

Wilson [24.] describes in his hypothesis a human relationship with natural environment as intuitive and cohesive. To perceive and remember the surrounding a person needs points of

reference which are used to describe the space and orientate in it. Here a person must rely on their feelings.

Lynch [16.] has divided the elements of space people can sense into five categories - paths, edges, districts, nodes, landmarks - which help to perceive the space and describe it [16.].

According to the Kaplan ART theory [7, 8, 9.], there are two types of attention - guided and unconstrained. The guided attention might be refocused but only partially, whereas the unconstrained attention is effortless and therefore no forced brain activity is needed giving the person an opportunity to relax [8, 9.] Several researches have focused on the importance of restorative environments in the process of healing from stress, tension and depression [25.].

4.3 The methodological structure of the questionnaire

The questionnaire is divided into ten thematic blocks, two of which are combined of general questions, such as age, gender, profession, and habits of visiting green spaces, to learn the background of the person answering. The rest of the thematic blocks focus on the eight landscape characteristics (Appendix 2.). Each thematic block covers one landscape characteristic, same questions are repeated in every block for comparing results later on. The questions determine the potential user groups, the activities they take in the space, their temporal preferences when visiting, the sense of safety in the space, the accessibility and activities allowed in the space concerning other visitors, the attentiveness of the user of the space, the influence of the space on the user.

Compiling the questionnaire, it was important for the answers to show if the people answering had different understandings about sensing the space. Questions were based on different theories. The questions were (Appendix 3.).

These questions determine whether particular green spaces are meant for particular passive or active activities, if the visitors feel comfortable among other people visiting the space and how people should behave in a shared space. The results show if the visits preferably take place in the evening but not definitely.

The questionnaire is combined of questions of different type - there are multiple choice questions and questions with open answers for the answerers to explain their thoughts.

The answers of all of the thematic blocks were compared and transferred into a graph to see patterns for each of the spatial characters. Men and women were compared as well as general patterns of behaviour. P- Grahn and A.-M. Berggren-Bärring have given the descriptions for the spatial characters what is followed here.

The multiple choice questions were analysed with three to five most popular answer genders but a general pattern of behaviour was looked for to see similarities and variations of landscape characteristics.

One word answers were assembled into a set. For example, a question “Which is the most powerful element?” could be answered using words such as a chair, a bench, sitting area, water, a pond, a stream, districts, corners; which were classified. Open questions were presented in the discussion.

4.4 Questionnaire Procedure

For conducting the questionnaire a web environment www.esurveycrator.com was used, which allowed the questionnaire to be filled in parts. When the person needed, they could take a break from filling it and continue later. Every answer was saved instantly which prevented any information from going missing. The questionnaire was public (Appendix 3), The questionnaire is consolidated) and shared via social media and e-mail. The questionnaire was open 26.02.2018-15.03.2018.

4.5 Data Processing

To create graphs questions and answers were inserted separately. A graph is created by the sum of answers. All of the figures are created in MS Office Excel by concentrating results into a single data field. The percentages are found statistically. The results are filtered based on the gender; and three to five most popular answers are shown. For questions with open answers, the answers that were given on less than 5% of the cases, the results were not taken into account. For multiple choice questions, all of the answers were included in the results.

5. RESULTS

5.1 Objective 1

Objective 1. Presumably, a person can perceive the space in the pictures and the potential emotions created by each space characteristic are different and can be determined. Each of the spaces have specific emotional, psychological and physical prerequisites which preset the space.

1. Why would You visit/use this green area?

In general, people mostly would like to visit green spaces for mental requirements, which are followed by recreational, social and purposes. The cultural requirements are the least favoured. (figure 1.) Comparing the male and female preferences for the general purposes of visiting green areas, the pattern is similar – the most popular response is “mental” whereas the least people responded “cultural”. Cultural requirements are more important among women, men on the other hand prefer to visit green areas for recreational and social purposes. Visiting green areas for mental purposes is equally popular among both men and women. (figure 2.)

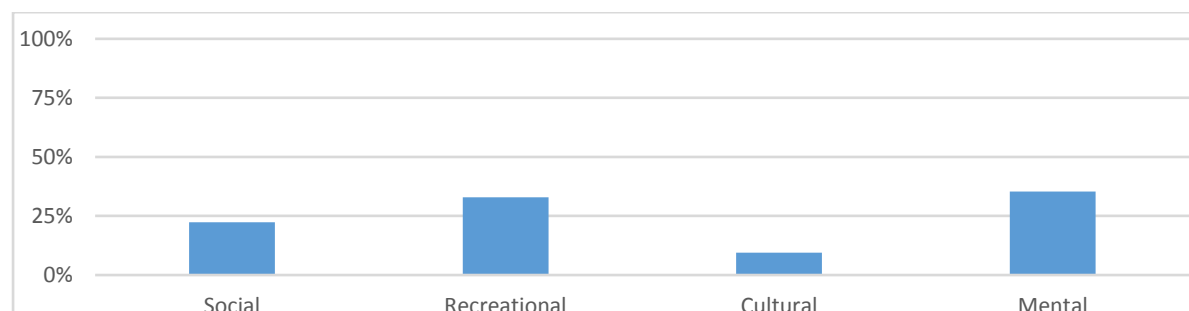


Figure 1. General purpose for visiting green areas.

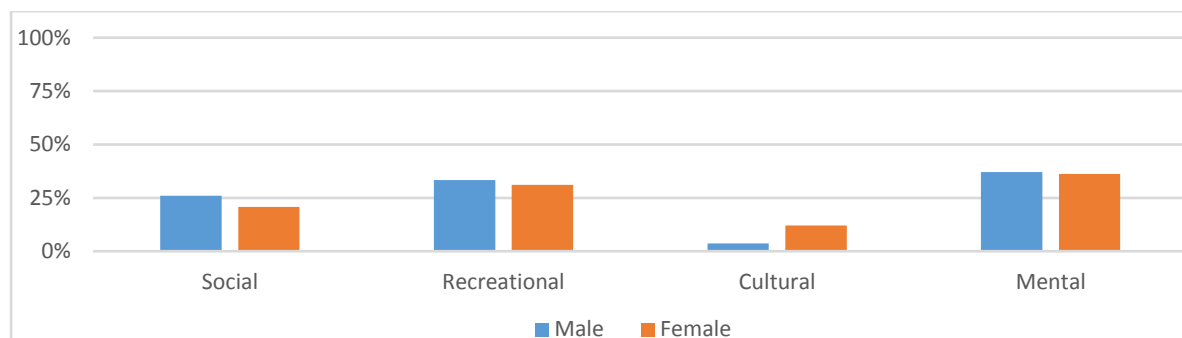


Figure 2. Purpose for visiting green areas in male and female user groups.

2. How do the pictures make You feel?

The most common feeling the respondents detected while watching the photographs in “encouraging” which is pointed out in five out of eight landscape characteristics. In general, all of the landscape characteristics evoke positive feelings, such as energising, relaxing, free, pleasurable, joyful etc. Thoughtfulness and nostalgia have also been sensed among the respondents, while some people find the pictures neutral. (Table 1.)

Table 1. Main feelings evoked by the landscape characteristics.

Characteristic type	Four most common feelings evoked by landscape characteristic:
Serene	encouraging 9%, friendly 9%, pleasurable 7%, protected 6%
The Common	encouraging 9%, protected 8%, recreational 5%, neutral 8%
Wild	exciting 13%, free 9%, lonely 8%, stimulating 8%
Space	encouraging 12%, pleasurable 8%, thoughtful 8%, nostalgic 8%,
The Pleasure Garden	thoughtful 10%, friendly 9%, joyful 8%, relaxing 8%
Festive	thoughtful 10%, encouraging 10%, joyful 8%, festive 8%
Culture	lofty 11%, relaxing 10%, stimulating 9%, joyful 9%
Rich in Species	energizing 11% , recreational 9%, neutral 8%, curiosity 8%

3. Which of the landscape characteristics made you feel fascinated, interested, or excited?

Overall the most enjoyable landscape characteristic is “Rich in Species” which is favoured by almost all of the respondents. “Festive”, “Wild”, “Space”, “Culture”, “Serene”, “The Pleasure Garden” and “The Common” follow with remarkably smaller percentages. (figure 3.)

Among male and female user groups the opinions generally match the overall opinion and “Rich in Species” is the most fascinating landscape characteristic. The amount of male respondents to like “Rich in Species” is superior, while landscape characteristics “Serene”, “The Common” and “The Pleasure Garden” evoke no such feelings at all. Women on the other hand do not find “Rich in Species” as interesting as men do. They also seem to be fascinated by “Festive”, “Culture”, “Space” and “Serene”. Unlike male, female user group mentioned all of the landscape characteristics fascinating, interesting and exciting. (figure4.)

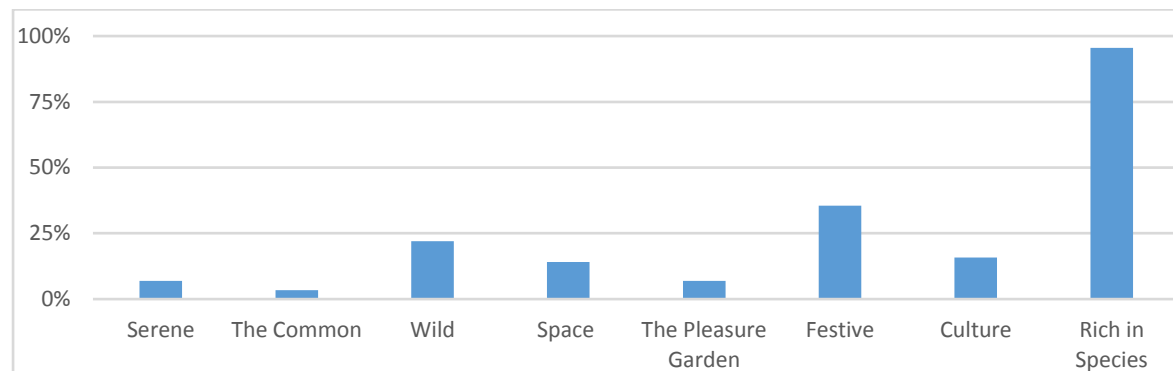


Figure 3. General opinion on the fascinating, interesting and exciting landscape characteristics.

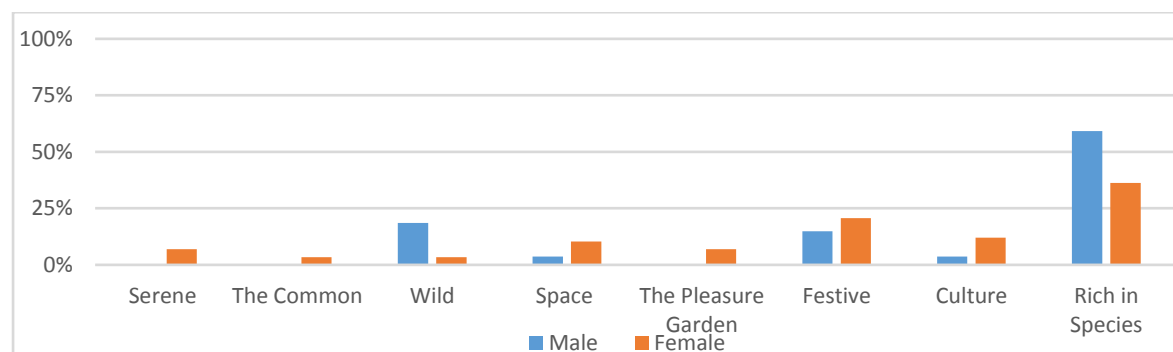


Figure 4. Male and female opinion on the fascinating, interesting and exciting landscape characteristics.

4. What type of activities could be done in this environment?

All types of activities (physical, cognitive, sensory) were considered possible in each of the landscape characteristics. Preference to take physical activities is similar among male and female respondents. Although, the overall preference to engage in cognitive and sensory activities is similar for men and women in every landscape characteristic, it is different for “Serene” and “The Common” landscape characteristics. “Culture” seems to be most suitable to engage cognitive abilities, whereas “Rich in Species” attracts physical activities. (figure 5.)

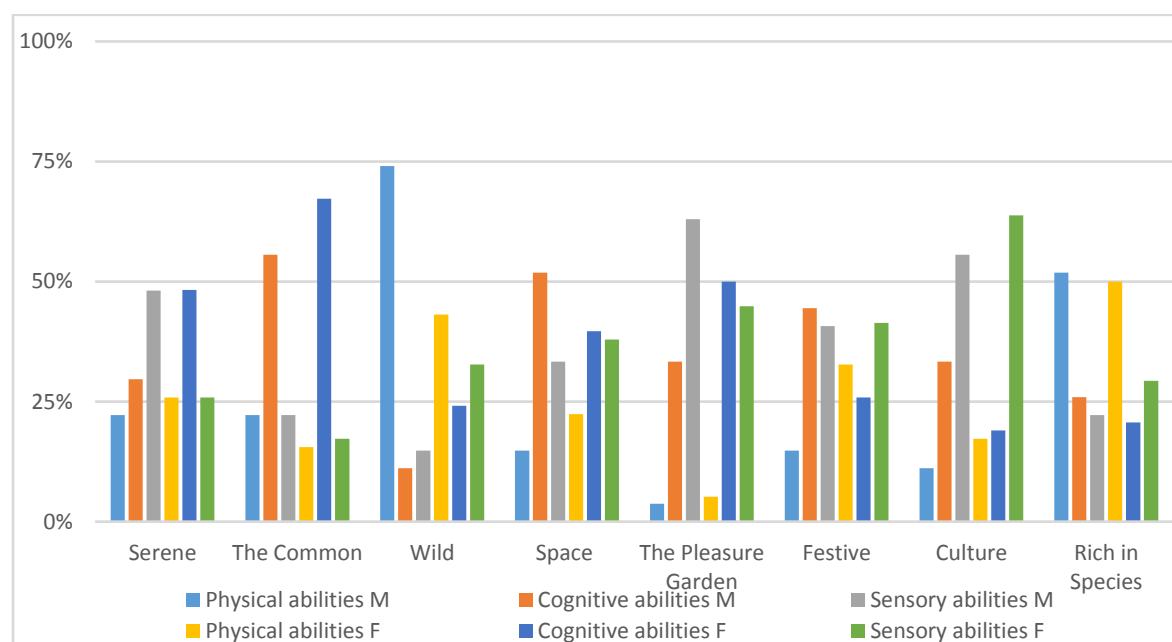


Figure 5. Suitable activities for male and female user groups in different landscape characteristics.

5. What type of healing activities could be taken in the space on the photos?

All of the proposed types of healing activities (physical abilities, cognitive abilities, sensory abilities) were considered possible in each of the landscape characteristics. Among men, the second type of healing activities is more common in each landscape characteristic. Women, on

the other hand, find healing activities of third type to be most suitable. There are some remarkable peaks in the comparison. For example, the landscape characteristics “Wild” and “Rich in Species” seem to support the physical activities (Type I). The activities of Type II are more likely to be enjoyed in “The Pleasure Garden”. (figure 6)

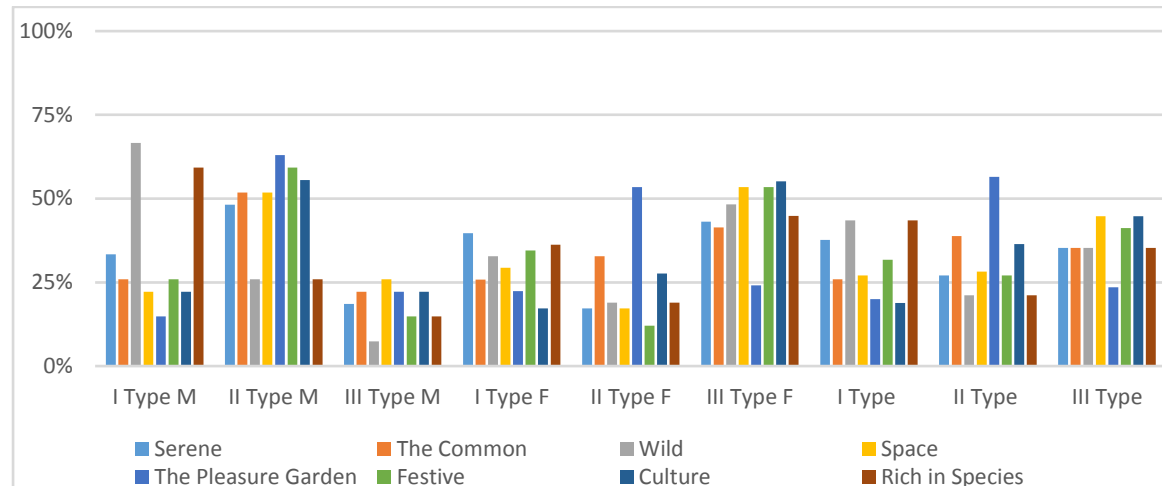


Figure 6. Types of activities favoured by men and women in different landscape characteristics.

6. Which seasonal attractions would occupy You in this space for the longest?

The attractions which occupy the visitor to stay in the green area longer are not the same for different landscape characteristics, although some of the preferences overlap. For example, the respondents expect clean surroundings and nice weather during all of the seasons and in all of the landscape characteristics. Nevertheless, there are some features that stand out seasonally. In the spring, people find awakening nature to attract them to spend time in green spaces. In the summer, it is various vegetation, colours in the autumn and snow in the winter. To conclude, the main attractions to invite people to green spaces and occupy them, are of natural origin. (figure 7.)

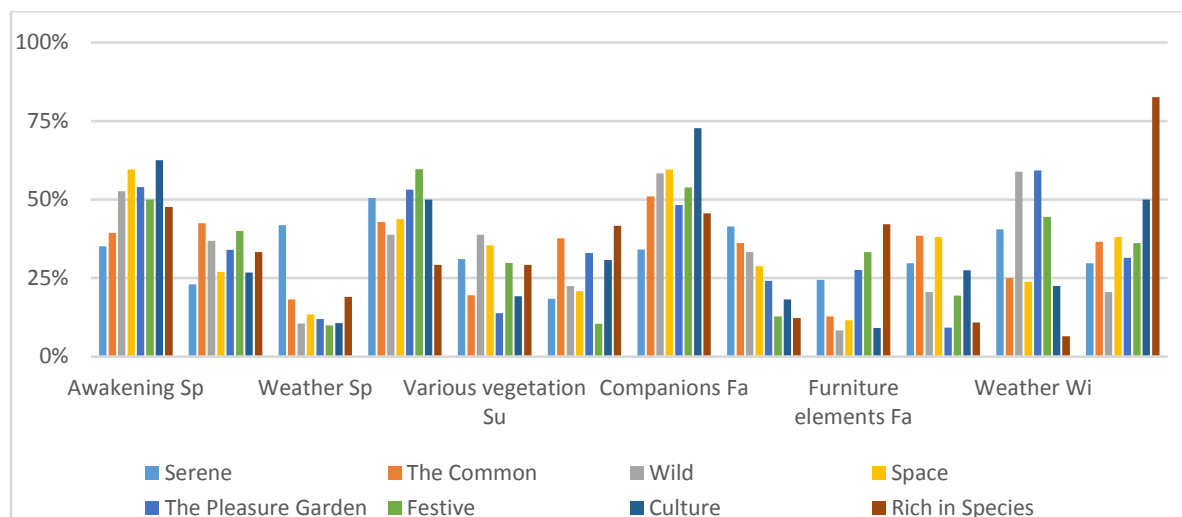


Figure 7. Seasonal attractions in landscape characteristics. Sp – Spring, Su – Summer, Fa – Fall, Wi – Winter.

7. What makes this environment feel safe?

All of the landscape characteristics have different features which allow them create the sense of safety. There are similarities, for example the presence of furniture is said to create safety in “Serene”, “Space” and “Rich in Species”. Generally, the features which create the sense of safety in all of the landscape characteristics, are considered more or less of cultural origin, such as openness, borders, order, cleanliness etc.

Table 2. Common features which create the sense of safety.

Characteristic type	Features which create safety
Serene	furniture 9%, views 9%, variable 7%,
The Common	openness 9%, views8%, variable 6%,
Wild	light 13%, openness 8%, greenery 8%,
Space	furniture 12%, greenery 8%, order 7%,
The Pleasure Garden	borders 11%, views 9%, openness 8%,

Festive	light 10%, openness 10%, diversity 8%,
Culture	arranged 12%, natural elements 10%, openness 8%
Rich in Species	openness 10%, furniture 8%, cleanliness 7%

8. How old does this landscape characteristic make You feel?

Generally the age perception created by each landscape characteristic is 30-40 years, whereas only 25% of the respondents are actually the same age. Nearly 50% are actually younger than 30. The characteristic “Cultures” creates a feeling of being remarkably older than the average perception, whereas people feel the youngest in the landscape characteristic “Rich in Species”. (figure 8.)

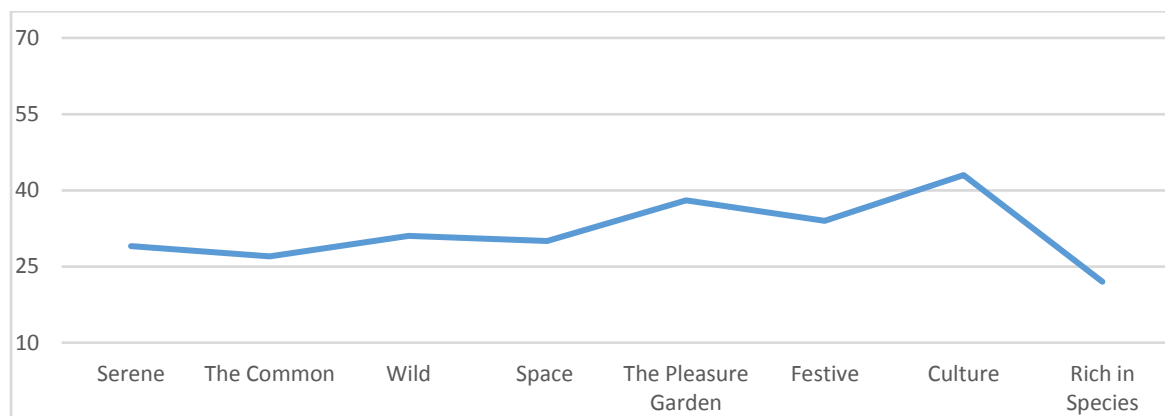


Figure 8. Age perception in different landscape characteristics.

5.2 Objective 2

Objective 2. Depending on the intentions of the user of the green space the focal features of space are different. The combinations of distinct elements should be emphasised but the presence of familiar elements in green spaces is also essential. All latent visual elements play an important role in the perception of the space.

9. Name the objects or characteristics on the photos that create the environment You would like to visit for the previously selected purpose.

Clean surroundings is the most preferred feature of environment for people with all of the purposes for visiting: social, recreational, cultural and mental, in each of the landscape characteristics. Overall, the preferred features differ across the landscape characteristics. For example, in “Culture” and “Space” silence is the most desired feature across all of the purposes for visiting. People who visit green spaces for mental purposes also prefer the sounds of birds and animals. When visiting “The Pleasure Garden” and “Serene” for recreational purposes it is important to have light. People who visit green spaces for cultural reasons seem to favour diverse vegetation. (figure 10.)

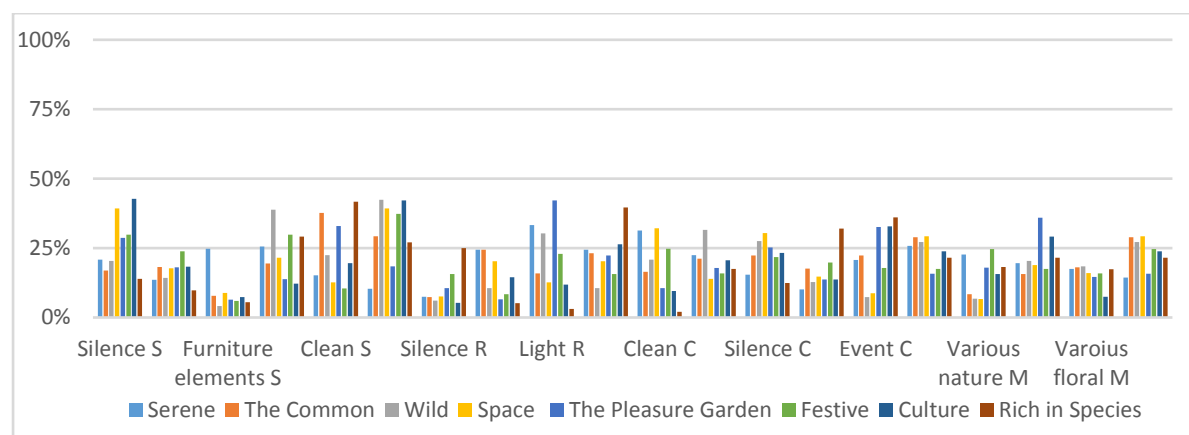


Figure 9. Features that create a favourable environment to visit for selected purpose.
S – Social, R – Recreational, C – Cultural, M – Mental.

10. Which elements can be found in the pictures?

In all of the landscape characteristics five different latent spatial elements can be distinguished. The respondents recognised all of them (that is paths, edges, districts, knots, landmarks) mostly in the pictures depicting “Serene” and “Rich in Species” landscape characteristic. Roads/paths were more conspicuous in the pictures of “The Common” and “Space”. Men and women make different observations. For example, women spot remarkably more districts and landmarks in “Culture” when men find districts to stand out in “Serene” and “Wild”. Both men and women recognise edges in “Festive” landscape characteristic. (figure 11.)

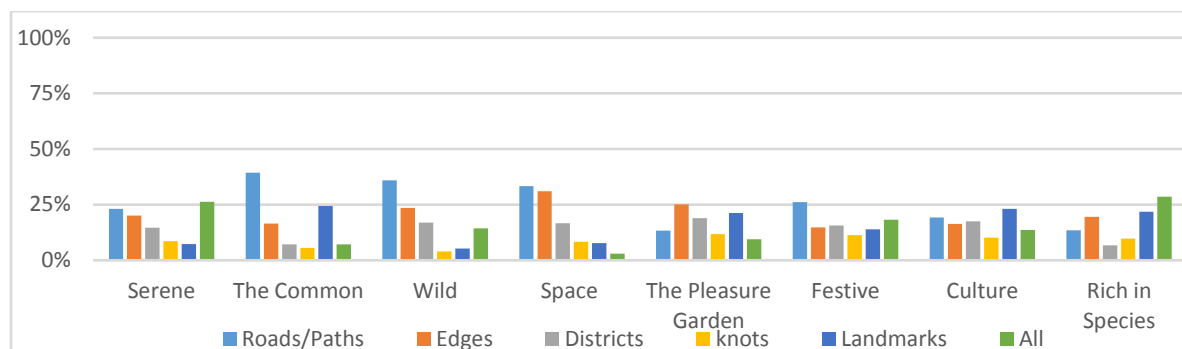


Figure 10. Recognizing latent spatial elements in landscape characteristics.

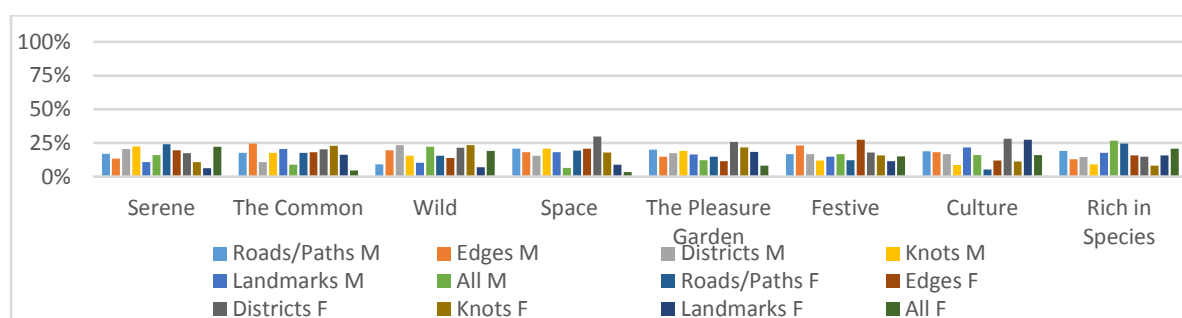


Figure 11. Male and female differences in recognizing latent spatial elements in landscape characteristics.

11. What makes You want to stay in the environment in the pictures or pass through with stops on the way?

Each of the landscape characteristics have different features which draw attention. The combination of latent spatial elements is the attractive feature in “The Pleasure Garden”, “Festive” and “Rich in Species”. Articulated spaces draw attention in “Serene” and “The Common” landscape characteristic. People find that separated spaces are necessary when visiting “Space”, “The Pleasure Garden” and “Festive”. In landscape characteristics “Wild,”, “Serene” and “The Common” people feel the need to find familiar objects and environments. (figure 12.)

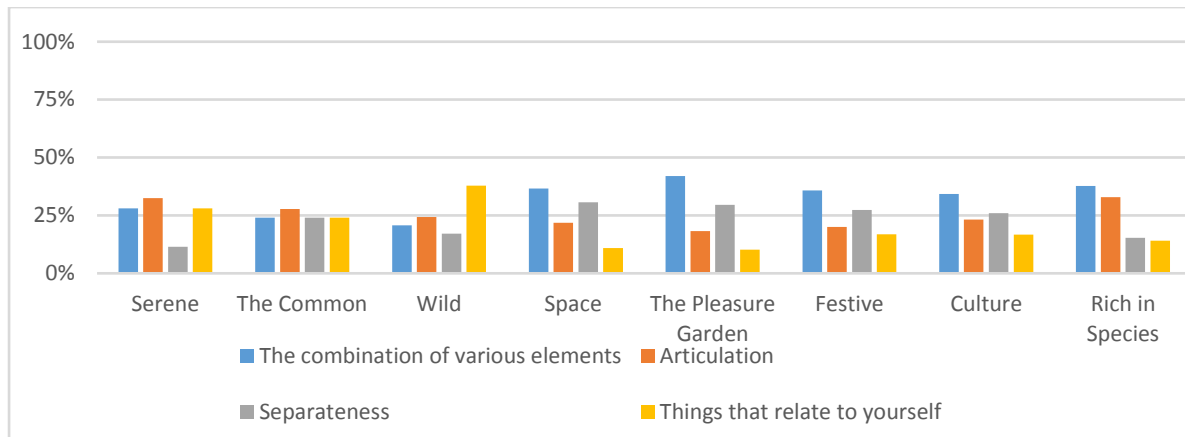


Figure 12. Features that draw attention in a landscape characteristic.

12. Which keywords are presented on the photos?

Women tend to perceive the landscape characters more homogeneous. For example, the homogeneous essence stands out in “The Common”, “Space” and “The Pleasure Garden” landscape characteristics. For men, the landscape characteristic “Serene” seems to be, lucid, very well interpreted, when “Wild”, on the other hand in complex according to the responses of men. The photograph picturing “Rich in Species” and “Serene” give the sense of tight space to men. The latter also feels tight among women but “Festive” even makes them feel anguished. (figure 13.)

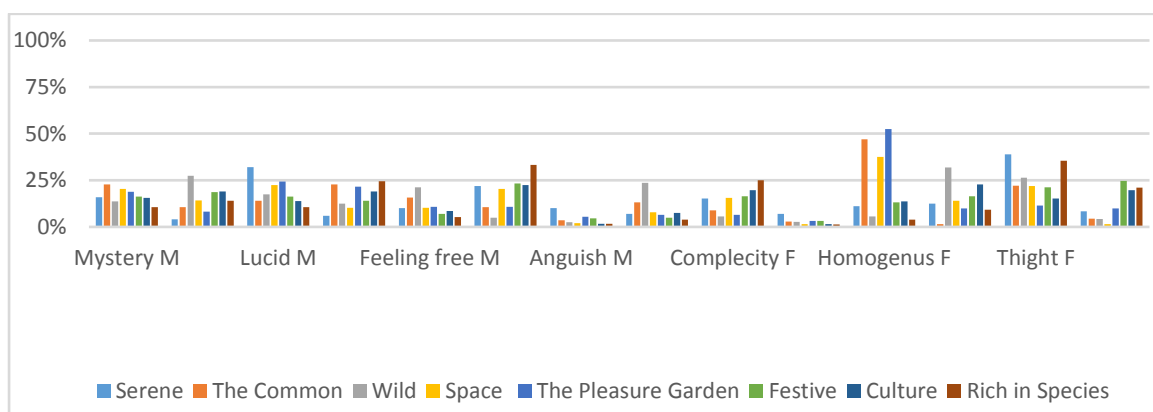


Figure 13. The presence of keywords in each landscape characteristic.

13. To exit the everyday routine, these pictures have: elements that are different from what You are used to; views You would like to see more often; environment that is different from the accustomed; diversity of species.

To exit the everyday routine, it is important that the green space has certain elements or combinations of them. The presence of different elements is in particular characteristic to “Serene” and “Rich in Species”. Availability of views is expected from “Culture”, “The Pleasure Garden” and “Space”. Overall, people prefer “Culture”, “The Pleasure Garden” and “Space” to be rich in species. (figure 14.) Women, generally, prefer the green spaces to be rich in species. Men, on the other hand, enjoy landscape views to exit their daily routine. (figure 15.)

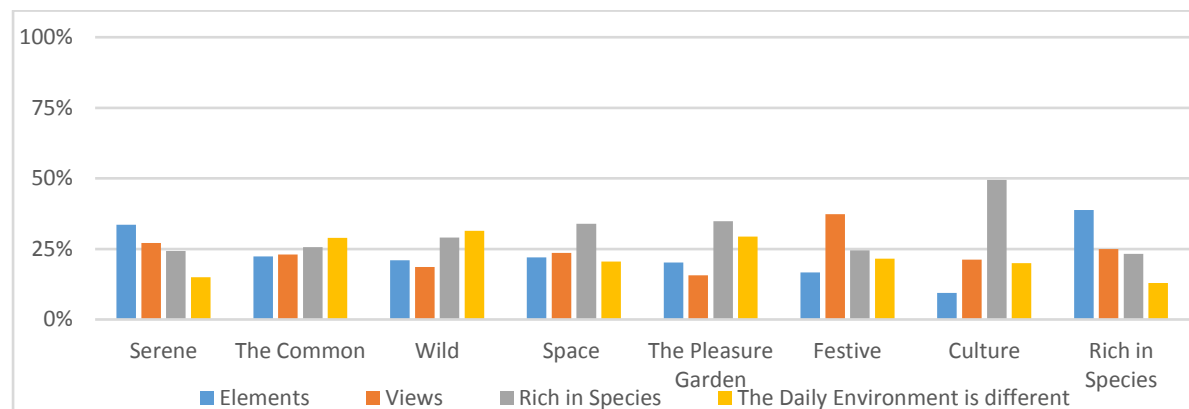


Figure 14. The prerequisites to able exiting the daily routine.

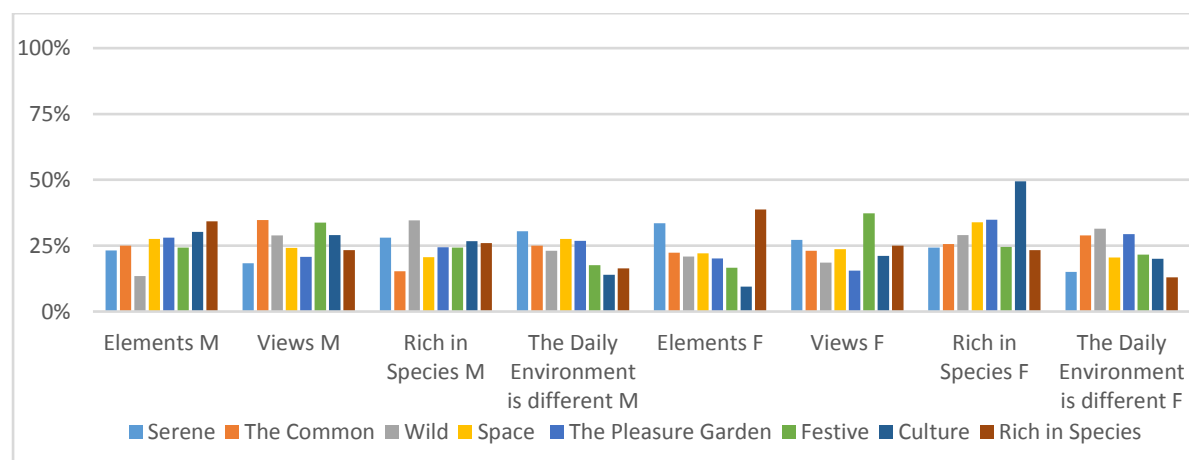


Figure 15. The prerequisites to able exiting the daily routine, male and female preferences.

5.3 Objective 3

Objective 3. Each of the landscape characteristics have features which attract users with certain intentions of recreation, whether it is a combination of some elements, variety of species, vistas, difference from daily environment. Views of the landscape characteristics are also considered as a feature.

14. How open is this space?

For green spaces to be comfortable, each person has to consider the others using the space. Landscape characteristics “The Common” and “Space” seem to prescribe the acceptable activities the most. The respondents feel like they should consider the presence of other people in all of the characteristics, but “Serene”, “Festive”, “Culture” and “The Pleasure Garden” stand out. In “Rich in Species” and “Wild” people feel like they can do what they want most likely. (figure 16.)

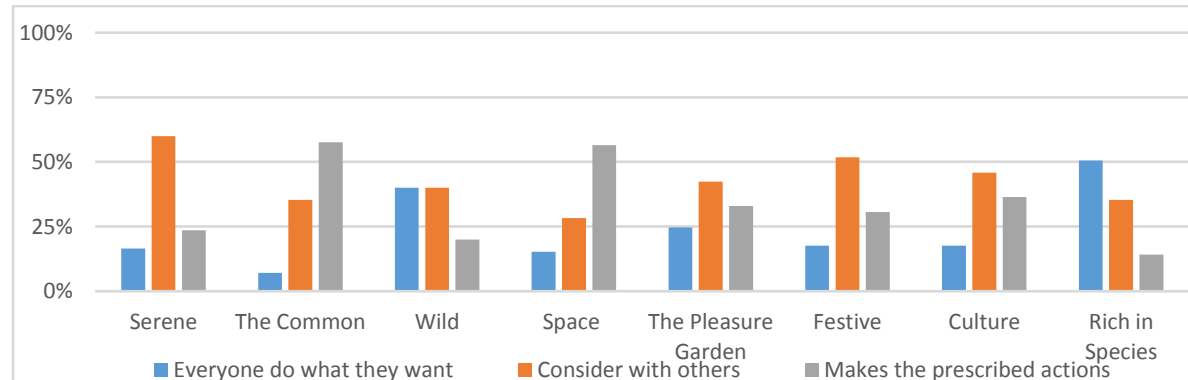


Figure 16. The level of freedom of activity in landscape characteristics.

Men most likely consider others in the landscape characteristics “Serene”, “Space”, “Festive” and “Culture”. Women feel the need to consider other people in “The Pleasure Garden” and “Serene”. (figure 17.)

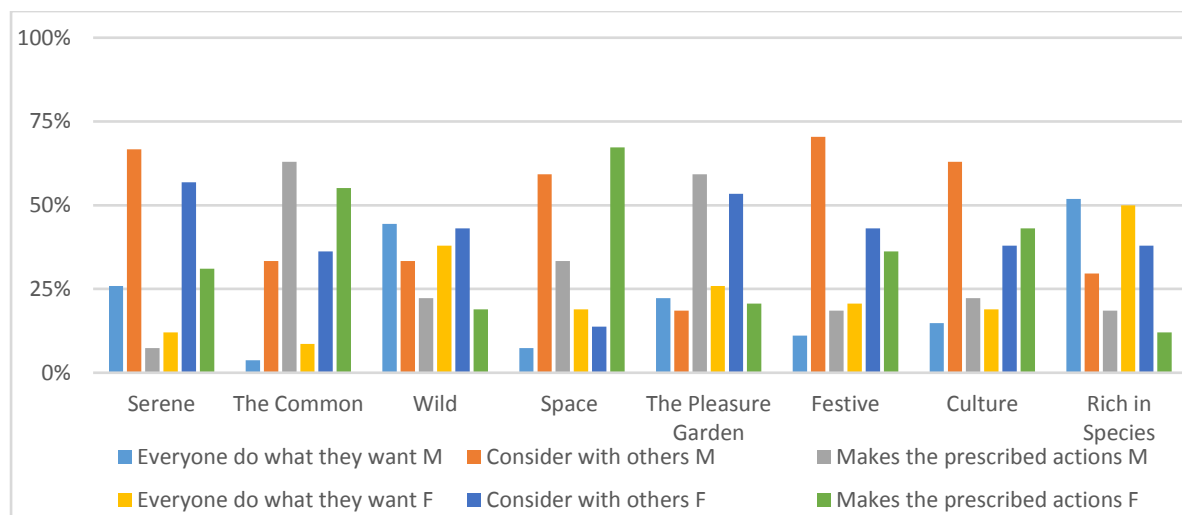


Figure 17. The level of freedom of activity in landscape characteristics for men and women.

15. What kind of support these photos provide?

In every landscape characteristic there are some people who can feel psychological, physical and emotional support (figure 18.). Men evaluated all landscape characteristics to provide all of the mentioned types of support more often (figure 19.). Landscape characteristics that provide more psychological support are “Serene” and “The Pleasure Garden”. (figure 18.)

Women feel that “The Pleasure Garden” gives them the most emotional support, men on the other hand, find “Serene” the most psychologically supportive landscape characteristic. (figure 19.)

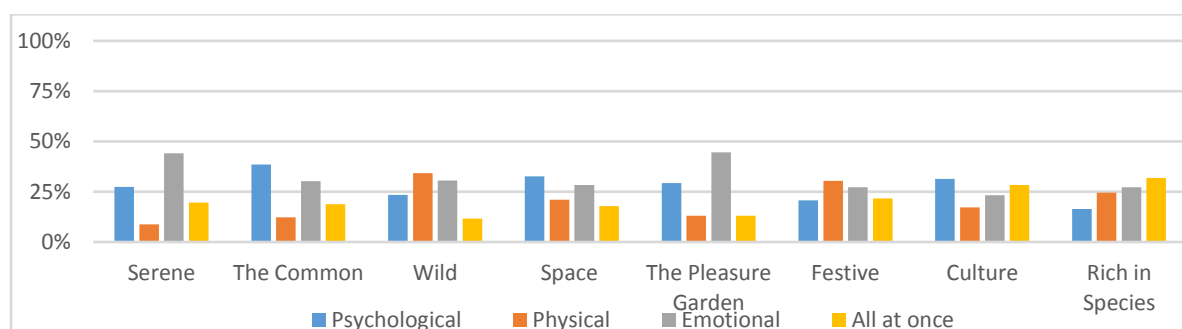


Figure 18. The type of support a landscape characteristic provides generally.

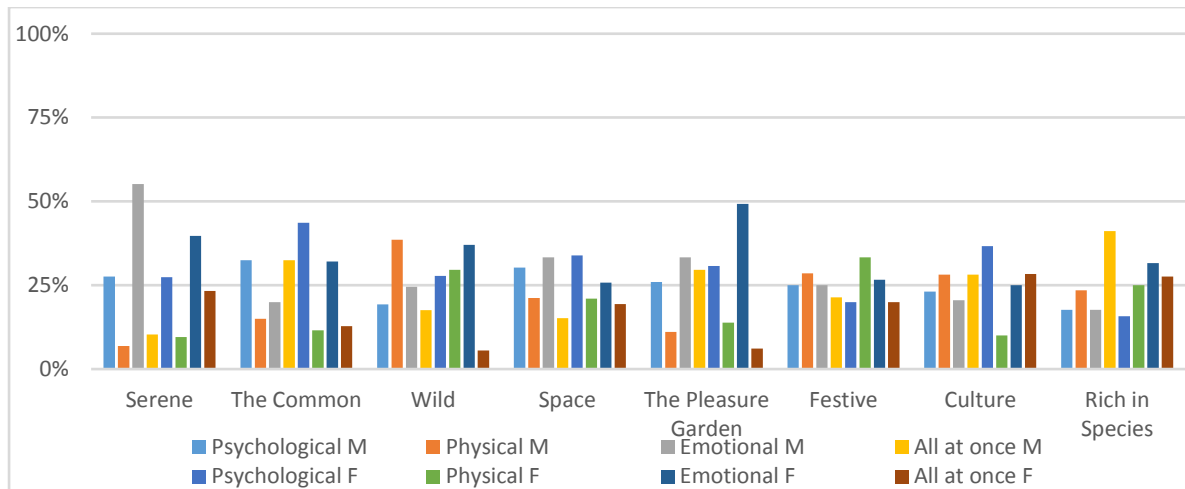


Figure 19. The type of support a landscape characteristic provide for men and women.

16. Which are the main user groups for the landscape characteristic?

All of the landscape characteristics are in general suitable for all user groups. On the other hand, some are more favoured than the others. Men and people with pets are the main user groups for the landscape characteristic “Wild”. Young people, students and women are the main user groups for “Space”. (figure 20.)

Elderly people could be most commonly pictured visiting “The Pleasure Garden”, “Culture” and “Serene”. (figure 20.)

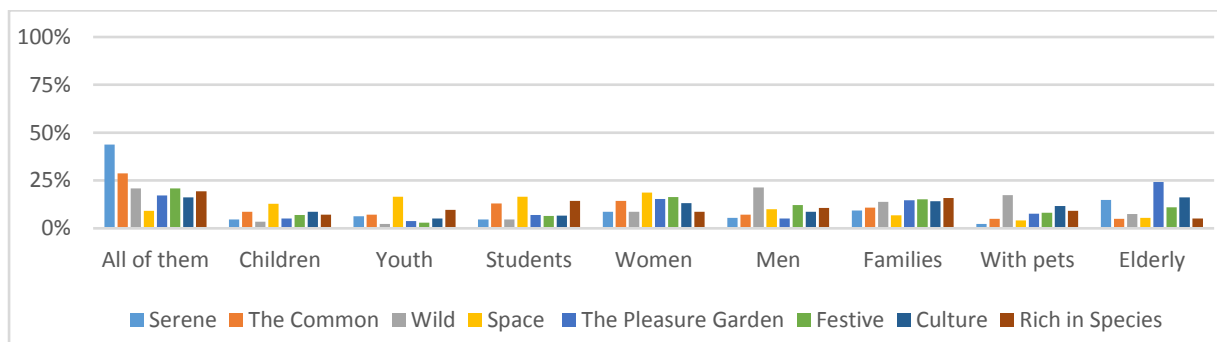


Figure 20. Main user groups for each landscape characteristic.

5.4 Objective 4

Objective 4. In the cultural space of Estonian, on the example of the Kadrioru Park, green spaces have visitors among each of the user groups all the time.

17. How are you occupied?

Most of the respondents are working, some of them working and studying and a few are students. The percentage of the pensioners among the respondents was insignificant (Figure 21.). The overall graph also presents the occupational division among male and female respondents (figure 22.)

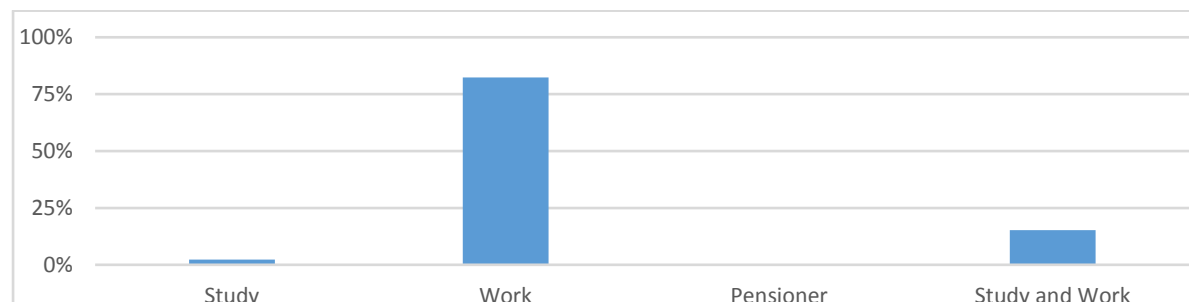


Figure 21. How are the respondents occupied.

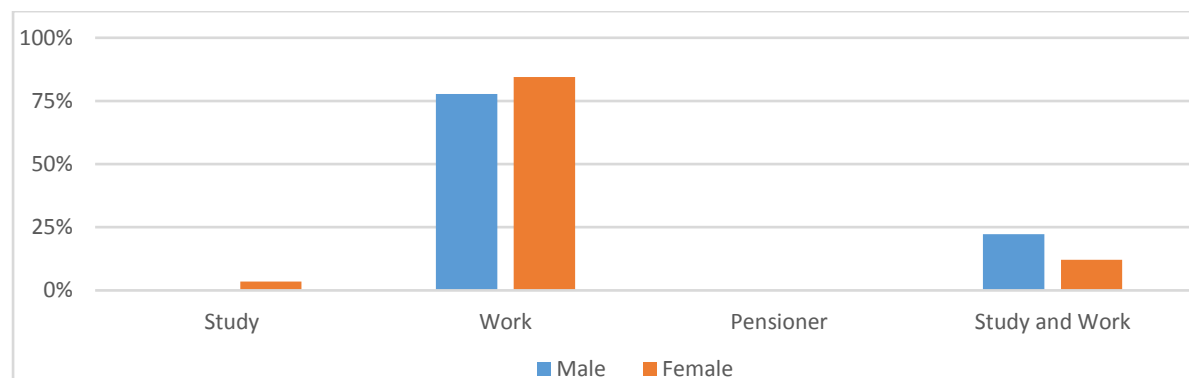


Figure 22. How are the male and female respondents occupied.

18. How often do you visit a green area?

When possible the respondents visit green areas no matter the time. Most people tend to do it once a week. (figure 23.) Women prefer to visit green spaces in the weekends, men more often, every day or at least once a week. (figure 24.)

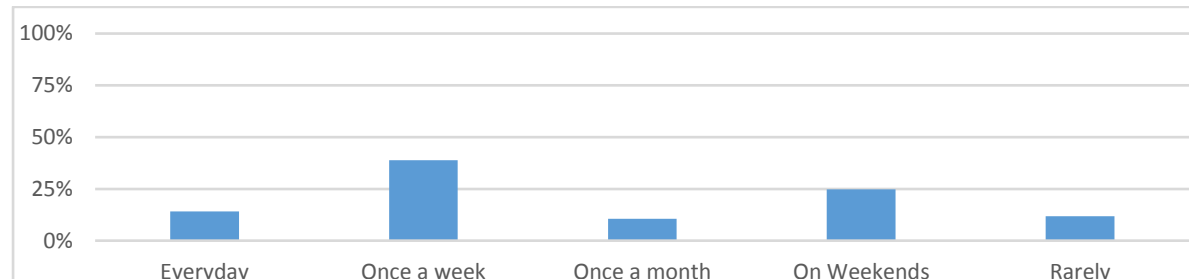


Figure 23. Preferred visiting frequency.

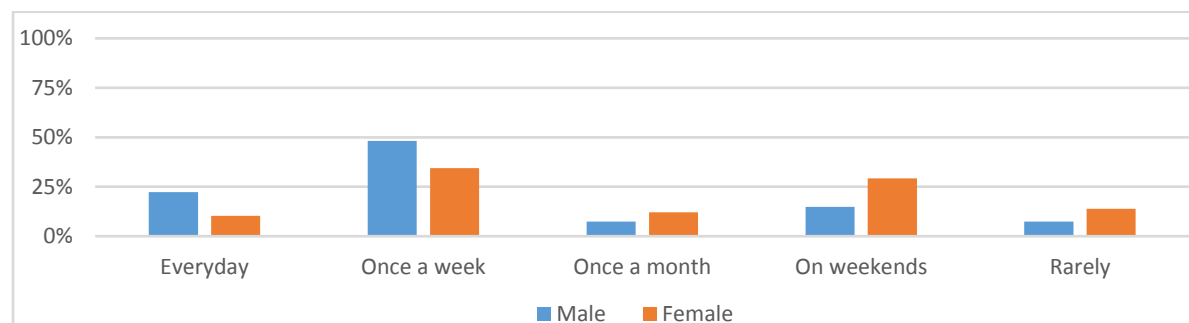


Figure 24. Preferred visiting frequency for male and female visitors.

19. When would You like to visit the landscape characteristic?

Men would like to visit green spaces rather on the weekends, whereas women, depending on the landscape characteristic, would enjoy visiting during the lunch time. Men visit mostly “Rich in Species” and “Culture”, women prefer “The Common” and “The Pleasure Garden”. (figure 25).

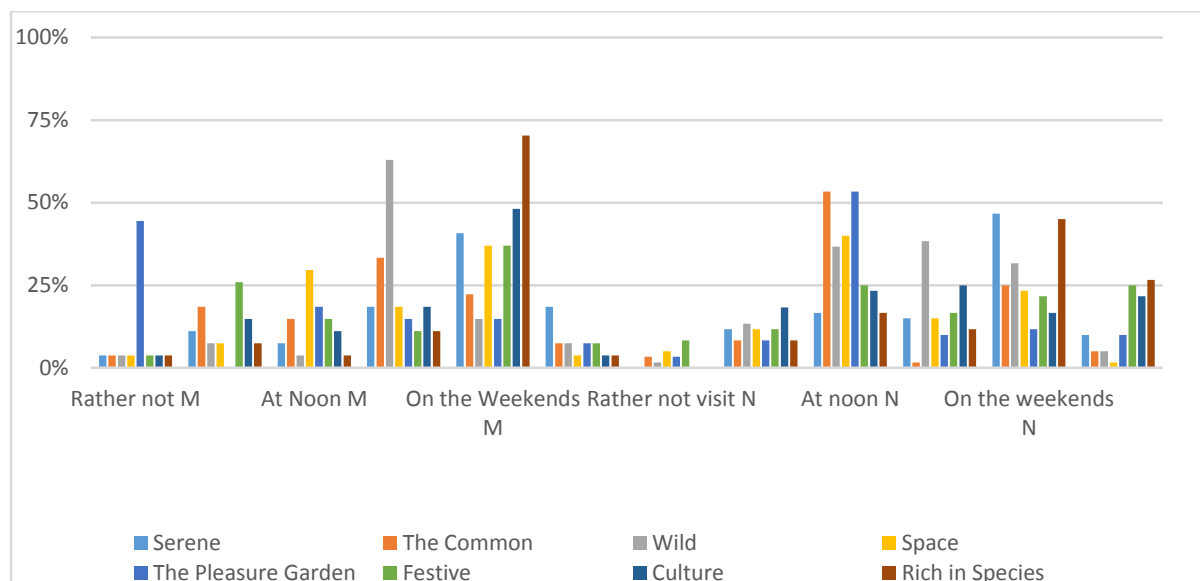


Figure 25. Temporal preference among men and women for visiting green spaces.

20. Whom would You like to visit the area with?

The landscape characteristics “Serene”, “Space” and “The Pleasure Garden” are preferably visited with a friend, as “Festive” and “The Common” are preferred to be visited alone. “Culture” and “Rich in Species” are most likely visited in group. (figure 26). Men are more likely to spend time in green areas with a stranger, than women. Although, they prefer to visit with a friend. Women preferably visit landscape characteristics alone or with a friend. (figure 27.)

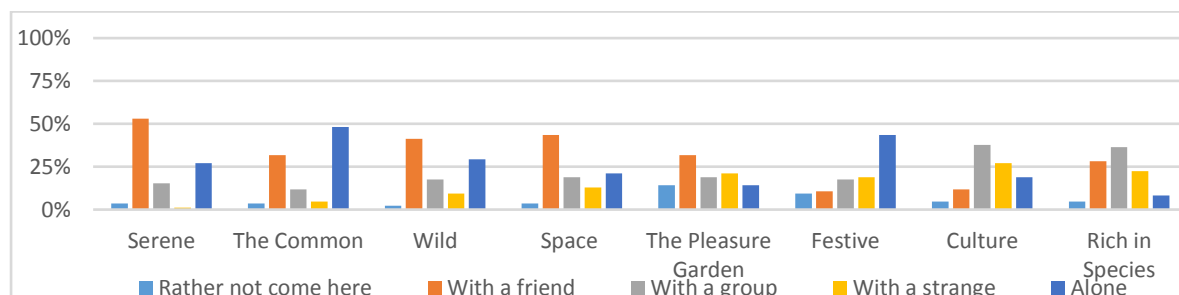


Figure 26. Whom would people prefer to visit green spaces with.

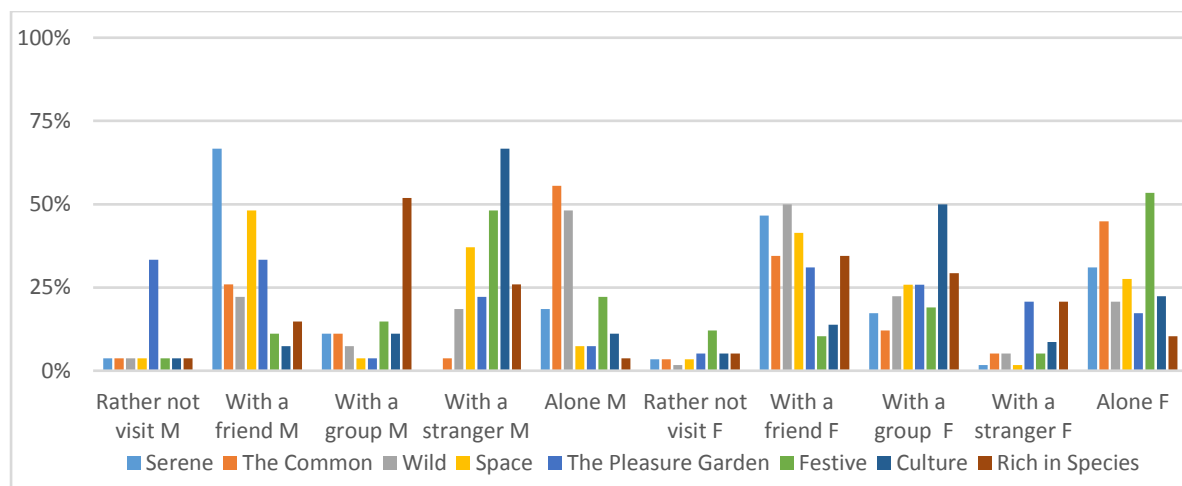


Figure 27. Whom would men and women prefer to visit green spaces with.

6. DISCUSSION AND CONCLUSION

6.1 Discussion

Earlier research on landscape characteristics has used different research methods, e.g. GIS, throughout the years, which has led to the third generation of the theory - Perceived Sensory Dimensions [4.]. PSD treats creating feelings through the features of the landscape characteristics. Whereas, in this thesis, landscape characteristics are the research subject which are evaluated using photographs to find the features of them. The thesis given, opens a new direction in describing the landscape by analysing the responses to the landscape. This new point of view handles the personal relations of the people with the green space, the perceived elements, the nature of the activities i.e. which give a more thorough understanding of the cultural space of Estonia as an environment [4, 5.].

The essence of the landscape characteristics can be compared to earlier research by K. Maikov, where the author has used the method to process the green areas of the Bastion [18.]. The subject has also been discussed in the second volume of “Õu” [19.].

According to the theory, people prefer a concept which is an outcome of their choices in an order of alternative opportunities. The choice is usually made on happiness, satisfaction, pleasure and availability. According to the results of this research, Kadrioru Park provides many different emotions, rather positive than negative. The most common feeling sensed is “encouraging”, which is evoked by five of the eight landscape characteristics. In addition, all of the landscape characteristics create the sense of joy, relaxation, friendly and energising.

There are several levels of healing: mental, physical, emotional [3]. The need of silence is characteristic to all of them and is said to be essential in the landscape characteristics “Culture” and “Space”.

Another aspect expected from green areas, is light, especially for recreational activities in environments such as “The Pleasure Garden” and “Serene”. If people visit green areas for cultural purposes, it is important for them to have an environment which is rich in species, as this preference is mutual for all of the landscape characteristics.

For mental healing, people would like to hear the sounds of birds and animals, in addition to silence. Women get the most emotional support in the landscape characteristic “The Pleasure Garden”, while men in “Serene”.

In conclusion, it can be said that the Kadrioru Park as an environment supports the processes of healing. In Estonian cultural space, it is more common to see single landscape characteristics rather than a group or forming a route. From the perspective of healing processes, higher concentration of different landscape characteristics have more value. Having more landscape characteristics combined enables rotating between them creating a space visited more often and for longer, resulting in shorter period necessary for total recreation.

T. Hartig has researched people’s habits of visiting green spaces alone and in a group and the results have shown that Swedish people, for example, prefer to spend time in green spaces with their closest friends [22.]. The given thesis reveals that people like to visit the landscape characteristics „Serene“, „Space“ and „The Pleasure Garden“ with friends, but „Festive“ and „The Common“ are preferably visited alone, while „Culture“ and „Rich in Species“ are most probably visited in a group. Men are more likely to visit all of the landscape characteristics with a stranger, unlike women. Nevertheless, men prefer to visit green spaces with a friend. Women, on the other hand, prefer to stay in green spaces alone or with a friend. The results for “Culture” and “Rich in Species” emphasise the essence of the Kadrioru Park as healing environment for larger groups of people.

Comparing landscape characteristics and latent spatial elements shows that the green spaces in the cultural space of Estonia are easily read due to evident borders and landmarks. This creates landscapes that are easy to understand and use. Results show “Serene” and “Rich in Species” as the best examples to illustrate it. The research suggests that women are more sensitive to latent spatial elements, especially to districts and landmarks (landscape characteristic “Culture”). In her master’s thesis, Marika Luks has claimed that for roads to spas in Estonia, landscape characteristics and latent elements are not presented within the same green spaces [17.].

6.1 The Conclusions of the Research

People's preferences for health related environment characters are also environment quality standards. The overall aim is to find out whether all of the landscape characteristics [2.] are suitable for all user groups, if there are differences in preferences of male and female users and how people feel themselves considering the presence of other people and acceptable activities based to Estonian cultural space.

Presumably, a person can perceive the space in the pictures and the potential emotions created by each space characteristic are different and can be determined. Each of the, paces have specific emotional, psychological and physical prerequisites which present the space.

- Why would you visit/use this green area?
- How do the pictures make you feel?
- Which of the landscape characteristics made you feel fascinated, interested, or excited?
- What type of activities could be done in this environment?
- What type of healing activities could be taken in the space on the photos?
- Which seasonal attractions would occupy you in this space for the longest?
- How old does this landscape characteristic make you feel?
- What makes this environment feel safe?

The thesis given has proved that looking at the pictures of the landscape characteristics evokes the same feelings as the environment presumably itself. The results can be seen in chapter 5.

2. Depending on the intentions of the user of the green space the focal features of space are different. The combinations of distinct elements should be emphasised but the presence of familiar elements in green spaces is also essential. All latent visual elements play an important role in the perception of the space.

- Which elements can be found in the pictures?
- Name the objects or characteristics on the photos that create the environment you would like to visit for the previously selected purpose.
- What makes you want to stay in the environment in the pictures or pass through

with stops on the way?

- To exit the everyday routine, these pictures have: elements that are different from what you are used to; views you would like to see more often; environment that is different from the accustomed; diversity of species.
- Which keywords are presented on the photos?

The latent spatial elements as focal features were approved to exist in all of the photographs depicting landscape characteristics. In the cultural space of Estonia, all of the latent spatial elements are said to act as focal features, whereas women perceive districts and landmarks, men knots and edges more likely.

3. Each of the landscape characteristics have features which attract users with certain intentions of healing process, whether it is a combination of some elements, variety of species, vistas, difference from daily environment. Views of the landscape characteristics are also considered as a feature.

- Which are the main user groups for the landscape characteristic?
- What kind of support these photos provide?
- How open is this space?

All of the landscape characteristics are suitable for different user groups. Nevertheless, some of them more than others. Environments that provide better psychological support are “Serene” and “The Pleasure Garden”. Although, psychological, mental and physical support are all perceived in all of the landscape characteristics to some extent. Women sense the strongest emotional support in “The Pleasure Garden” whereas men in the “Serene”. Men sense all of three more often than women.

4. In the cultural space of Estonia, on the example of the Kadrioru Park, green spaces have visitors among each of the user groups all the time.

- How are you occupied?
- How often do you visit a green area?
- Whom would you like to visit the area with?
- When would you like to visit the landscape characteristic?

Potentially the most active users are people who work and/or study, who would like to visit green spaces at the weekends and in the middle of the day.

SUMMARY

Kristin Arniste

The thesis given is a discussion on landscape architecture, finding landscape characteristics, assessing landscape characteristics as healing environments for people in the cultural space of Estonia based on the example of the Kadrioru Park. The thesis uses a variety of tools of different theories on landscape psychology to evaluate the characteristics of green spaces. The research is built up on a questionnaire which is based on photographs depicting eight landscape characteristics and questions to help assess the characteristics as well as create connections. The questionnaire was answered on the period 26.02.2018-15.03.2018 via www.esurveycrator.com. The respondents were reached through social media and direct requests via e-mail. The questionnaire did not have a specific target group and everyone who reached the questionnaire could respond.

The Kadrioru Park is the largest and most visited park in the capital of Estonia, on different levels and using the descriptions of the landscape characteristics by Berggren-Bärring and Grahn [2.], latent images by Lynch and Attention Restoration Theory [7.] the potential visitors' perception on the perceived sensory dimensions were researched.

The results added new potential viewpoints to existing research on how landscape characteristics are perceived in the cultural space of Estonia. It turned out, environment which can be described as "Rich in Species" evokes more emotions than any other. All of the latent spatial elements are perceived in "Rich in Species" and "Serene" landscape characteristics. The availability of different elements and views is characteristic to "Serene" and "Rich in Species". The most psychological support is provided by "Serene" and "The Pleasure Garden". Men and people with pets are more likely to enjoy "Wild". People would like to visit green spaces all the time, when given the opportunity, most often it is done once a week. Several landscape characteristics, such as "Serene" and "Space" are preferably visited with a friend, while some are more likely to be visited alone or in a group.

KOKKUVÕTE

Kristin Arniste

Käesolev magistritöö tegeleb maastikuarhitektuuri eriala maastikukarakteristkute leidmise, nende hindamisel keskkonna omadustena inimese tervenemise protsessis Kadrioru pargi näitel. Töös on käsitletud erinevate keskkonnapsühholoogiliste teooriate töövahendeid hindamaks maastiku roheruumi omadusi. Töö on ülesehitatud küsimustikule, milles tuuakse välja kaheksa ruumikarakteristikut fotode ja küsimustega, ning seostega erinevate osade vahel. Küsimustik viidi läbi ajaperioodil 26.02.2018 – 15.03.2018, [www. Esurveycreator.com](http://www.esurveycreator.com) keskkonnas. Vastajateni jõuti läbi sotsiaalmeedia kanalite, e-mailide otsese päringuga. Küsimustikule oli võimalik vastada kõigil, kes küsimustikuni jõudsid, puudus otsene sihtrühm vastajatele.

Kadrioru park on pealinna üks suurimaid ja külastatavaid rohealasid, erinevatel tasemetel. Töövahendina on kasutatud maastikukarakteristikute kirjeldust Berggren-Bärring – Grahn 1995 kirjanduse näitel. Lisa teooriatena on kasutatud Lynch Latentseid pildielemente [16.], ART teooriat [7. 8, 9.].

Tulemused lisasid eelnevatele uuringutele eestlaste potentsaalseid nägemusi, mida maastikukarakteristikud Eesti kultuuriruumis tekitavad. Enim emotsioone tekitab ruumikarakter "Rich in Species". Kõik latentsed pildi elemendid on esindatud "Rich in Species" ja "Serene" ruumikarakterites. Elemendid ja vaated on eeskätt iseloomulikud "Serene", "Rich in species" karakteritele. Suuremat psühholoogilist toetust pakuvad keskkonnad – "Serene", "The pleasure garden". Mehed ja loomadega inimesed oleksid peamine sihtgrupp "Wild" maastikukarakteris. Võimalusel külastatakse igal ajal roheruume, enamasti tehakse seda kord nädalas. Ruumikarakterit "Serene", "Space" ja "The Pleasure garden" eelistatakse külastada sõbraga.

7. REFERENCES

1. Bagot, K-L. (2004). Perceived restorative components: A scale for children. In: *Children Youth and Environments*, 14(1), 107-129.
2. Berggren-Bärring, AM., & Grahn, P. (1995). Importance of a single park area on experienced characteristics. Ecological aspects of Green Areas in Urban Environments. In: *IFPRA World Congress Proceedings*, 110. Antwerp: Flanders. Belgium.
3. Daniel, T.C. (2001). Whither scenic beauty? Visual landscape quality assessment in the 21st century. In: *Landscape Urban Planning* 54, 267–281.
4. Grahn, P., & Stigsdotter, U.K. (2010). The relation between perceived sensory dimensions of urban green space and stress restoration. In: *Landscape and Urban Planning*, 94(3-4), 264-275.
5. Hartig, T., Kaiser F.G., & Bowler, P.A. (1997a) Further development of a measure of perceived environmental restorativeness. In: *Working Paper No.* Sweden: Uppsala University, Institute for Housing Research. Gävle.
6. Kalm, M., Kuuskemaa, J., Murre, A. & Polli, K. (2010). Kadriorg, lossi lugu. Tallinn: Kadrioru Kunstimuuseum.
7. Kaplan, R., & Kaplan, S. (1989). The experience of Nature. Cambridge: Cambridge University Press.
8. Kaplan. S. (1992). Perception and landscape conception and misconceptions. In: *Nasar, J.L. (Ed.). Environmental Aesthetics: Theory, Research, and Applications*. Cambridge: Cambridge University Press.
9. Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. In: *Journal of Environmental Psychology* 15, 169–182.

10. Kellert, S.R. (1993). *The Biophilia Hypothesis*. Island Press.
11. Kellert, S.R. (1996). *The Value on Life: Biological Diversity and Human Society*. Washington, DC: Island Press.
12. Kjellgren, A., & Buhrkall, H. (2010). A comparison of the Restorative effect of a natural environment with that of a simulated natural environment. In: *Journal of Environmental Psychology* 30, 464 – 472.
13. Knopf, R. (1987). Human Behavior, Cognition and Affect in the Natural Environment. In: *Handbook of Environmental Psychology*. New York: Wiley.
14. Korpela, K., Kyttä, M. & Hartig, T. (2002). Restorative experience, self-regulation, and children's place preferences. In: *Journal of Environmental Psychology* 22, 387–398.
15. Laas, E. (2014). Urban green space management. In: *Estonian University of Life Sciences*.
16. Lynch, K. (2005). *The image of the city*. MIT PRESS; Cambridge Mass.
17. Luks, M. (2011). *Tervendavate teekondade võimalused Põhja-Eesti spades*. Magistritöö. Tartu: Eesti Maaülikool.
18. Maikov, K. (2010). Landscape characteristics as approach to landscape design, based to examples of Bastion parks in Tallinn. In: *Contemporary landscape design: new approaches and dimensions, St. Peterburg, 10-12.06.2010*. Ed. Dr. Maria Ignatieva. St. Peterburg, 124–124.
19. Maikov, K. (2010). Maastikukarakteristikute PIIRID. In: *ÕU*. 2, 23–24.
20. Maikov, K. (2011). *Tervendavad aiad*. Pegasus: Tallinn.
21. Maikov, K., Bell, S., & Sepp, K. (2008). A comparison of the evaluation of room characteristics of healing gardens. In: *Design and Nature*. IV, (223–232). Wessex: Institute of Technology Press.

22. Staats, H., & Hartig, T. (2004). Alone or with a friend: A social context for psychological restoration and environmental preferences. In: *Journal of Environmental Psychology - J ENVIRON PSYCHOL.* 24, 199-211.
23. Stigsdotter, U. K. (2012). Urban green space and health related quantity of life. In: *Cheonan International Conference for Citizens' Quality of Life*, 91-108. Ukendt.
24. Stigsdotter, U. K. & Grahn, P. (2002). What Makes a Garden a Healing Garden? In: *Journal of Therapeutic Horticulture.* 13, 60-69.
25. Stigsdotter, U. K., Corazon, S. S., Sidenius, U., Kristiansen, J. & Grahn, P. (07.2017). It is not all bad for the grey city – A crossover study on physiological and psychological restoration in a forest and an urban environment. *Health & Place* 46, 145–154.
26. Stigsdotter, U. K., Corazon, S. S., Sidenius, U., Refshauge, A. D. & Grahn, P. (2017). Forest design for mental health promotion—Using perceived sensory dimensions to elicit restorative responses. *Landscape and Urban Planning* 160, 1–15.
27. Wilson, E. (1984). *Biophilia*. Cambridge: Harvard University Press.

Internet sources

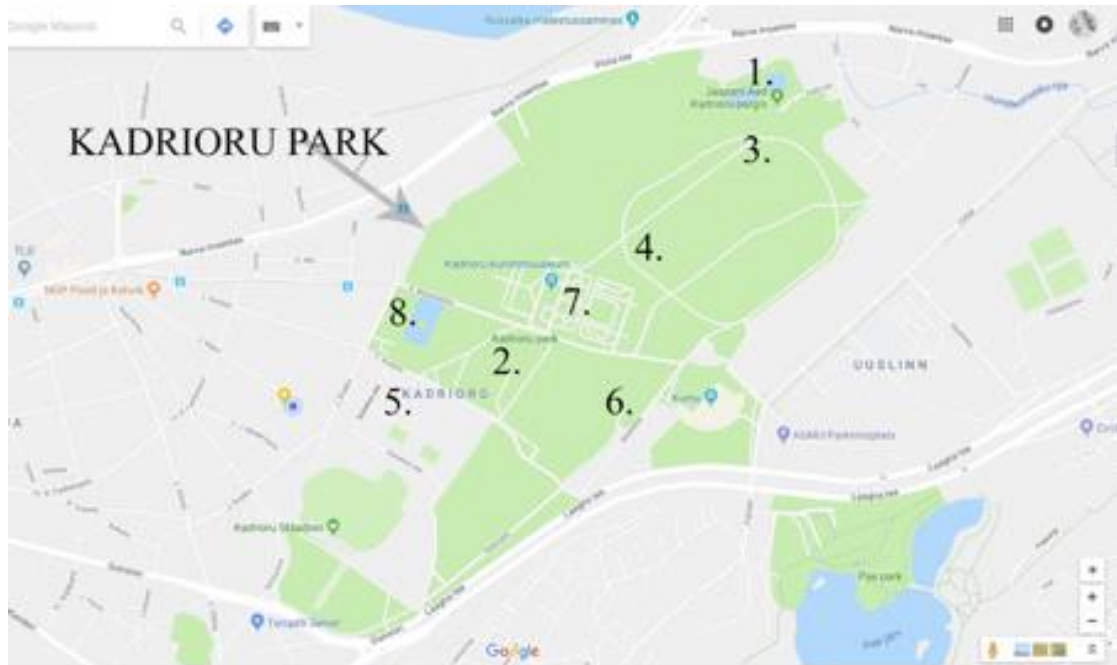
28. Ervald, K. (21.07.2017). Psühhiaater Jüri Ennet: tänapäeva raugematu elutempo toob kaasa ärevushäired, stressi ja unehäired. In: *Pealinn.ee.* (<https://bit.ly/2IBvU0R>) (21.04.2018)
29. Hansson, A. (28.09.2017) Majandusprognoos aastaks 2018. In: *Slideshare.* (<https://bit.ly/2IRYDC7>) (29.04.2018)

30. Himma, M. (24.10.2017). Suurkonverentsil räägitakse looduspõhistest lahendustest linnades. In: *Navator.err.ee* (<https://bit.ly/2s3MQ9s>) (29.04.2018)
31. Kanervikko, K. (20.05.2016). Mis juhtub siis, kui sa une arvelt tööd teed ja piisavalt ei maga? In: *Motivaator.ee*. (<https://bit.ly/2wZluXx>) (29.04.2018)
32. Google Maps, <http://maps.google.ee> (16.04.2018)
33. Pictures of Kadrioru park, (<https://bit.ly/2ID6Gzi>) (25.02.2018)

8. APPENDIX





8.1 Appendix 1





Landscape Characteristics in Kadrioru Park. All the photos made by the author except 8. [33.]



8.2 Appendix 2

Landscape Characteristic definition. Descriptions from Berggren-Bärring & Grahn [2.].

Characteristic	Specification	Photo
Serene	A landscape characteristic providing peace, silence and care. Sounds of wind, water, birds and insects. No rubbish, no weeds, no disturbing people.	
The Common	A green, open place admitting of vistas and stay.	
Wild	A landscape characteristic offering fascination with wild nature. Plants seem to be self-sown. Lichen- and moss grown rocks, old paths.	
Space	A landscape characteristic offering a restful feeling of “entering another world”, a coherent whole, like a beech forest.	

The Pleasure Garden	An enclosed, safe and secluded place, where you can relax and be yourself and also experiment and play.	
Festive	A meeting place for festivity and pleasure.	
Culture	A historical place offering fascination with the course of time.	
Rich in Species	A room offering a variety of species or animals and plants.	

8.3 Appendix 3

Questionnaire (The questionnaire is consolidated)

Küsimustik

"Rohealade hindamine erinevate keskkonna psühholoogiliste mõõdikutega"

Tere!

Olen maastikuarhitektuuri magistrant Kristin Arniste ja koostan magistritööd teemal "Rohealade hindamine erinevate keskkonna psühholoogiliste mõõdikutega", mis uurib inimese suhestumist rohealadega ning seda, millised on peamised mõjutegurid keskkonnas, mis mõjutavad inimest, tema käitumist, roheala kasutamist ja tervendavaid keskkonnapsühholoogilisi aspekte.

Küsimustiku täitmine võtab umbes 60 minutit, seega varu natuke aega. Küsimuste tüübid on erinevad ning osades peaks natuke pikemalt oma mõtteid ja tundeid kirjeldama.

Aitäh Sulle, et oled vaevaks võtnud mind aidata selle magistritöö valmimisega!

Kristin

Küsimuse Sinu kohta

1. Sugu *

☐

Mees

☐

Naine

2. Vanus *

3. Elukoht *

Linn, maakond

4. Mis on Sinu tegevusvaldkond? *

☐

Õpin

☐

Töötan

☐

Pensionär

☐

Õpin ja Töötan

5. Kui Sa Valisid "Töötan", siis palun täpsusta, millises valdkonnas.

- | | | | |
|--|--|--|--|
| <input type="radio"/> Administratiivtöö | <input type="radio"/> Meedia / avalikud suhted | <input type="radio"/> Elektroonika / side | <input type="radio"/> Personalijuhtimine |
| <input type="radio"/> Haridus / teadus | <input type="radio"/> Tehnika | <input type="radio"/> Kaubandus | <input type="radio"/> Turism /hotelliindus / toitlustamine |
| <input type="radio"/> Kultuur / kunst / meelelahutus / sport | <input type="radio"/> Ehitus / kinnisvara | <input type="radio"/> Pangandus / kindlustus | <input type="radio"/> Finants / raamatupidamine |
| <input type="radio"/> Teenindus | <input type="radio"/> Juhtimine | <input type="radio"/> Tootmine / töötlemine | <input type="radio"/> Korrakaitse / päästeteenistus |
| <input type="radio"/> Avalik sektor | <input type="radio"/> Müük | <input type="radio"/> Energeetika / elekter | <input type="radio"/> Põllumajandus / keskkonnakaitse |
| <input type="radio"/> IT | <input type="radio"/> Tervishoid / sotsiaaltöö | <input type="radio"/> Kolmas sektor / MTÜ | <input type="radio"/> Turundus / reklaam |

Sissejuhatavad küsimused

Küsimused, mis aitavad Sul mõtestada enda jaoks roheruumi, avalikku ala; viia Sind sellele lainele, kui palju Sa igapäevaselt kasutad ja vajad mingit rohekeskkonda ja millisel eesmärgil.

6. Millisel eesmärgil külastad/kasutad roheala (vali üks)? *

Jäta valik endale palun meelde, sest küsimus valiku kohta on igas teemaplokis.

- ☐ Sotsiaalsel
- ☐ Rekreatiivsel
- ☐ Kultuurisel
- ☐ Vaimsel

7. Kui tihti külastad mõnda roheala? *

Avalik roheala on loodusliku tekke või inimtegevuse poolt korraldatud ala linnaruumis, mis pakub võimalust inimestel oma aega veeta ja tegevusi läbi viia. Keskkond, kus on rõhk looduslikul ja sellega sobituvatel väljunditel.

- ☐ Iga päev
- ☐ Kord nädalas
- ☐ Kord kuus
- ☐ Nädalavahetusel
- ☐ Harvem

Küsimused maastikukarakteristikute kohta - selgus, avatud, metsik, ruum, naudingute aed, pidulikkus, kultuur, liigirikkus.

8. Nimeta fotol need objektid ja omadused, mis loovad sellise keskkonna, et külastaksid seda eelpool valitud eesmärgil? *

Eesmärgid olid: sotsiaalne, rekreatiivne, kultuurne, vaimne.



9. Milliseid tundeid ülalolev pilt Sinus tekitab? Palun kirjelda. *

Rahustab, teeb ärevaks, julgustab, tõukab eemale jne.



10. Millist tuge antud foto Sulle pakub? *

- ☐ Psühholoogilist
- ☐ Füüsilist
- ☐ Emotsionaalset
- ☐ Kõik korraga

11. Mis muudab fotol oleva keskkonna Sinu jaoks selliseks, et Sa tahaksid sinna jääda või sellest peatustega läbi liikuda? *

- ☐ Erinevate elementide kooslus
- ☐ Liigendatus (hargnevad suunad, erinevad tasapinnad jne)
- ☐ Eraldatus (võimalus leida oma nurk selles ruumis)
- ☐ Asjad, mis seonduvad Sinuga (vaated, taimed, elemendid jne)

12. Mis on hooajaliselt see, mis Sind selles ruumis ajaliselt kauem kinni hoiaks? *

Kevad

Suvi

Sügis

Talv

13. Milliseid elemente leiad pildilt? *

- ☐ Teed
- ☐ Servad
- ☐ Piirkonnad
- ☐ Sõlmed
- ☐ Maamärgid
- ☐ Kõik eelnev

14. Mis on kõige mõjuvam element või vaate osa antud fotodel? *

Mis Sind kohe kõnetab, siim haarab esimesena, süvened pikemalt jne.

15. Mis tüüpi tegevusi võiks Sinu arvates siin keskkonnas teha? *

- ☐ Füüsiliste võimete arendamine
- ☐ Kognitiivsete oskuste arendamine (mälu, käskude täitmine jne)
- ☐ Sensoorne stimulatsioon (tekstid, värvid, mida saab pildil hinnata)

16. Millist tüüpi oleksid Sinu tervendavad tegevused fotol oleval alal? *

- ☐ I tüüp - Loodus mõjub aju limbilisele keskusele. Roheluse taastav mõju ja kognitiivsed funktsioonid- kaks erinevat tähelepanu. Aed ja loodus tasakaalustavad inimese kontrolli enda üle.
- ☐ II tüüp - Tegevused aias - tähendusrikas töötamine, rõõmupakkuv, inimene on oma olemuselt aktiivne olend, nauding ja meelerahu.
- ☐ III tüüp - Sõltub aiaruumist, kogenumatusest, inimese taustast ja iseloomust. Keskkond ise pakub tervendavat protsessi.

17. Kellega Sa tuleksid fotol olevale alale? *

- ☐ Üksi
- ☐ Grupiga
- ☐ Sõbraga
- ☐ Võõraga
- ☐ Ei tulekski

18. Iga päeva rütmist välja tulemiseks on üleval oleval fotol: *

- ☐ Elemendid, mida Sul kodus ei ole
- ☐ Vaated, mida sooviksid rohkem näha
- ☐ Igapäevasest erinev keskkond
- ☐ Liigirikkus

19. Milliseid märksõnu silmad fotol: *

- ☐ Salapärane (tahaksid midagi rohkemat näha ja kogeda jne)
- ☐ Kompleksne (mitmest osav koosnev)
- ☐ Loetav (kuidas ruumi on kujutatud, elementide paigutus)
- ☐ Ühtne (ruumi olemuse ja elementide kokku sobimine)
- ☐ Vabadus (sõltumatu, iseseisev)
- ☐ Kitsas (piiratud, pisike)
- ☐ Ängistav (hirmu tekitav, õudne, pime)

20. Palun põhjenda oma valikut *

Mis ajendas Sind just neid valikuid tegema, kui midagi oli nimekirjast puudu, siis palun nimeta ning selgita.

21. Millisel ajal tahaksid nimetatud maastikukarakteristikus viibida? *

- ☐ Hommikul
- ☐ Lõunal
- ☐ Õhtul
- ☐ Nädalavahetusel
- ☐ Igal ajal
- ☐ Ei soovigi

22. Palun põhjenda oma valikut *

Mis mõjutab Sinu ajalist eelistust antud ruumis viibimiseks? Kas üldiselt miski mõjutab Sinu ajalisi võimalusi roheruumis viibimiseks (kool, töö, pimeduse kartus, üksi olemine jne).

23. Millised võiksid olla peamised maastikukarakteris viibijate sihtgrupid? *

- ☐ Lapsed
- ☐ Noorukid
- ☐ Tudengid
- ☐ Naised
- ☐ Mehed
- ☐ Pered
- ☐ Lemmiklooma omanikud
- ☐ Eakad
- ☐ Kõik nimetatud

24. Nimeta vähemalt kolme sihtgrupi tegevused maastikukarakteristik. *

Loetle tegevusi

25. Kui vanalt Sa end maastikukarakteris tunnend? *

Palun kirjuta number

26. Millest võib eelnev vanuse tunnetus tingitud olla? *

Kirjelda, miks tekkis selline vanuseline määratlus, millest see tulenes.

27. Mis muudab fotol oleva keskkonna Sinu jaoks turvaliseks? *

Võib tekitada ka vastupidise tunde. Sel juhul kirjelda, mis muudab keskkonna ebaturvaliseks.

28. Kui avatud alaga on Sinu arvates tegemist? *

- ☐ Iga kasutaja teeb, mida soovib
- ☐ Iga kasutaja arvestab teiste kasutajatega
- ☐ Iga kasutaja teeb vaid neid tegevusi, mis selles paigas ette nähtud

29. Millise sündmuse puhul külastaksid fotol olnud keskkonda? *

Avalik üritus, privaatne sündmus, kultuurihuvi, kehakultuur jne.

Lõpetuseks

30. Missugune pilt tekitab naudingut ja huvi, vaimustuse tunde/mõtte? *

Selgus, Metsik, Ruum, Avalik, Naudingute aed, Pidulikkus, Kultuur, Liigirohkus

31. Kui Sa soovid küsitluse analüüsi kohta infot, siis jätta palun oma meili aadress.

Aitäh Sulle!

» [Redirection to final page of eSurvey Creator](#) (change)